

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P551537

Luminaire Tested: **FCC-X-2-LD4-2LO-35-UNV-81-94-ED1D-90**

Issue Date: 7/9/2021

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



**Test Information**

Test Method: LM-79-08  
Report Number: P551537  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2105-248-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: FCC-X-2-LD4-2LO-35-UNV-81-94-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3500K, AND 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

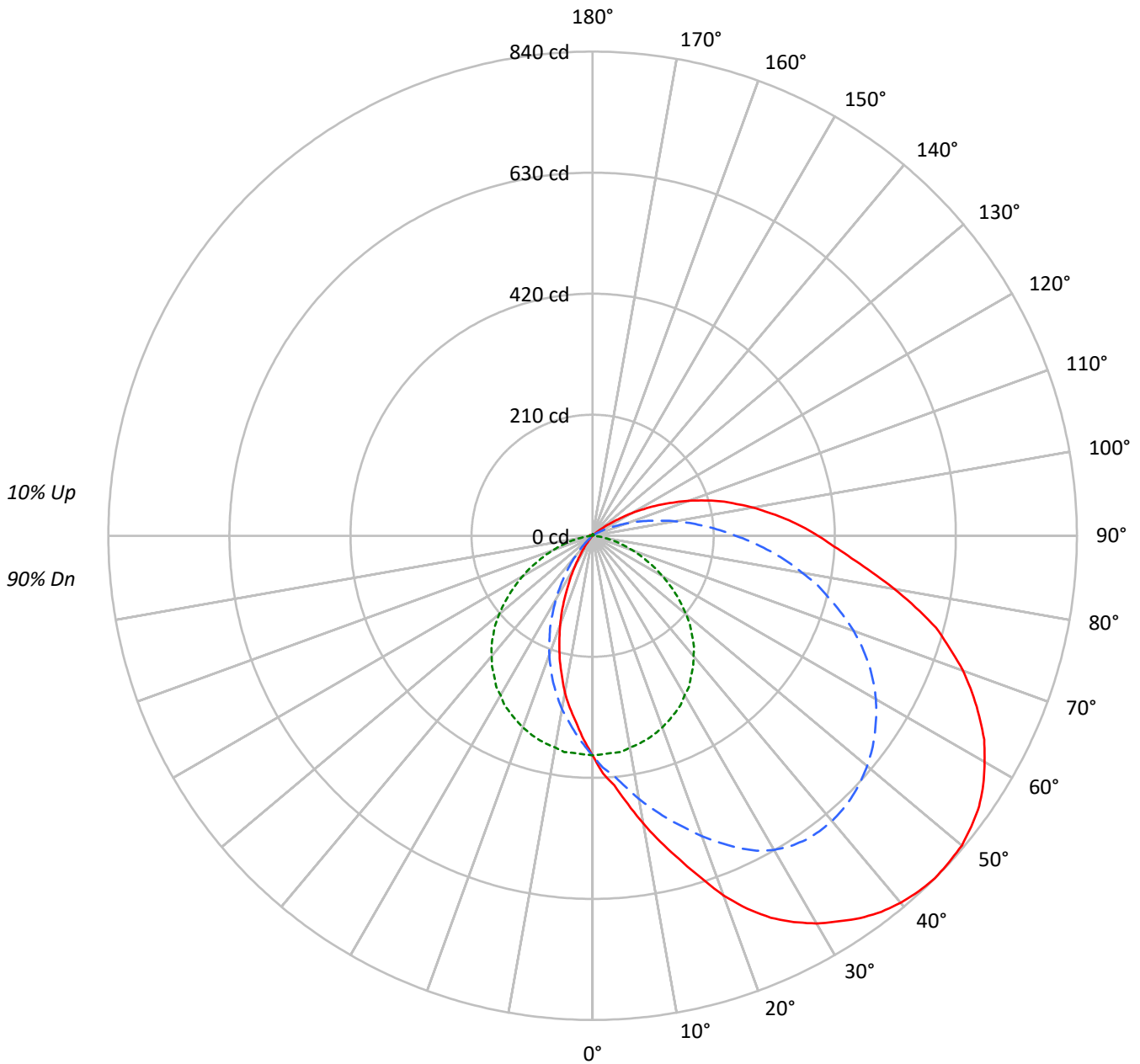
Lumens per Lamp: N/A  
Luminaire Lumens: 1883.0 lumens  
Efficiency: N/A  
Efficacy: 80.1 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 23.5  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT

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CATALOG NUMBER: FCC-X-2-LD4-2LO-35-UNV-81-94-ED1D-90

### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20									
RC	80									50									30									10									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0																
RCR																																					
0	117	117	117	117	113	113	113	113	105	105	105	99	99	99	93	93	93	90																			
1	103	96	91	86	99	93	88	83	87	83	79	81	78	74	76	73	70	67																			
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	53																			
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	43																			
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	36																			
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	30																			
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	26																			
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	23																			
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	20																			
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	18																			
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	16																			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	4100	4100	4100
5°	4500	4040	3371
10°	5093	3990	2778
15°	5708	3940	2165
20°	6437	3875	1594
25°	7042	3801	1047
30°	7492	3701	589
35°	7882	3593	260
40°	8228	3462	62
45°	8524	3296	0
50°	8772	3077	0
55°	8961	2796	0
60°	9057	2472	0
65°	9094	2105	0
70°	9065	1717	0
75°	8949	1265	7
80°	8586	773	39
85°	8298	371	53



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	36.5	1.9
10°-20°	109.2	5.8
20°-30°	176.9	9.4
30°-40°	227.2	12.1
40°-50°	257.2	13.7
50°-60°	266.5	14.2
60°-70°	251.3	13.3
70°-80°	210.6	11.2
80°-90°	152.7	8.1
90°-100°	100.4	5.3
100°-110°	58.0	3.1
110°-120°	25.6	1.4
120°-130°	6.9	0.4
130°-140°	1.6	0.1
140°-150°	1.0	0.1
150°-160°	0.7	0.0
160°-170°	0.4	0.0
170°-180°	0.2	0.0
0°-30°	322.6	17.1
0°-40°	549.9	29.2
0°-60°	1073.6	57.0
0°-90°	1688.3	89.7
90°-120°	183.9	9.8
90°-150°	193.5	10.3
90°-180°	195.0	10.4
0°-180°	1883.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	381	381	381	381	381	
5°	435	418	378	343	326	44
15°	581	509	365	264	220	167
25°	731	598	339	174	109	338
35°	810	644	297	84	27	508
45°	840	638	244	19	0	648
55°	818	598	176	0	0	731
65°	740	529	105	0	0	732
75°	617	427	45	0	0	647
85°	451	309	7	2	3	385
90°	391	248	2	3	3	214
95°	336	194	1	3	4	263
105°	231	100	1	2	4	244
115°	126	33	2	2	2	126
125°	37	5	2	2	2	37
135°	2	2	2	2	2	3
145°	0	2	2	2	2	0
155°	1	2	2	2	0	0
165°	1	2	2	2	0	0
175°	1	2	2	2	0	0
180°	2	2	2	2	2	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	380.9	380.9	380.9	380.9	380.9	380.9	380.9	380.9	380.9	380.9	380.9
2.5°	412.9	412.4	411.0	408.5	405.1	399.3	394.5	390.1	384.3	379.4	370.2
5°	434.7	432.3	430.4	428.0	420.2	414.9	406.1	396.4	387.2	378.0	359.5
7.5°	469.7	465.8	462.9	456.1	445.4	433.3	419.7	410.5	404.2	378.5	346.9
10°	507.0	503.6	497.8	485.7	472.6	455.1	435.7	413.9	394.5	373.1	335.8
12.5°	543.9	539.1	530.8	515.3	496.8	475.0	448.3	422.6	395.0	369.7	322.7
15°	580.8	575.5	566.7	547.8	523.5	494.9	462.4	429.9	397.4	365.4	309.1
17.5°	621.1	613.8	600.7	579.3	548.8	513.3	475.0	435.7	396.4	360.0	294.5
20°	664.2	654.1	640.0	611.4	575.5	533.7	487.6	441.5	395.9	353.7	278.0
22.5°	700.2	690.0	674.4	644.8	601.7	550.7	498.3	445.4	394.0	346.4	262.5
25°	731.2	723.0	706.0	672.0	626.4	568.7	508.5	448.3	391.1	338.7	246.0
27.5°	755.5	747.7	728.8	693.8	647.3	584.7	516.3	449.8	387.2	330.9	229.0
30°	776.8	769.0	746.2	710.3	661.3	597.3	524.0	450.3	382.3	319.3	210.6
32.5°	793.3	786.0	762.7	724.4	671.0	606.0	528.4	449.8	376.0	311.0	190.7
35°	809.8	802.5	775.4	734.6	678.3	609.9	531.8	447.4	368.3	297.4	171.8
37.5°	822.4	814.2	786.5	741.4	681.7	610.9	531.3	444.0	360.0	286.3	152.8
40°	831.2	822.4	792.8	745.3	682.7	609.4	527.4	438.1	350.3	272.2	132.9
42.5°	837.0	827.3	795.7	751.1	680.7	605.5	521.6	430.9	339.6	260.1	114.0
45°	839.9	829.7	796.2	746.2	677.3	598.3	512.9	421.6	328.0	243.6	95.1
47.5°	838.4	827.3	793.8	740.9	671.0	590.5	503.2	410.5	313.9	229.0	77.1
50°	836.0	824.4	788.5	734.1	662.3	580.8	492.5	396.9	299.4	211.1	61.1
52.5°	828.2	816.6	782.6	724.4	652.1	569.6	477.9	382.8	283.8	193.6	46.6
55°	818.5	807.9	772.4	715.7	639.0	556.0	464.3	367.8	268.8	175.6	33.5
57.5°	803.5	793.8	759.8	701.6	625.9	541.0	449.3	351.3	249.9	157.7	23.3
60°	785.1	775.4	742.4	685.6	610.9	524.0	432.8	334.3	232.9	139.7	14.6
62.5°	765.7	756.4	722.0	665.7	591.9	506.1	414.9	317.3	214.9	123.2	8.7
65°	739.9	731.2	700.2	641.9	571.1	486.7	395.0	296.9	196.5	104.8	4.9
67.5°	712.8	705.0	673.5	620.1	546.8	465.3	374.6	277.1	177.1	88.8	2.4
70°	683.7	673.9	644.8	590.5	522.1	441.1	352.3	256.7	158.7	73.3	0.0
72.5°	649.7	642.4	614.3	562.8	493.5	415.3	329.5	234.4	138.3	58.2	0.5
75°	616.7	607.5	581.8	533.2	465.3	388.2	304.2	213.5	118.4	44.6	0.5
77.5°	574.0	571.1	546.8	499.8	438.6	362.0	276.6	188.3	99.5	32.0	0.5
80°	531.3	528.4	509.5	466.3	407.6	330.9	250.9	164.5	81.0	21.3	0.5
82.5°	489.1	485.2	467.3	431.3	376.0	304.7	224.2	140.7	64.0	13.1	0.5
85°	451.2	446.4	427.0	394.0	343.5	275.1	196.5	117.4	47.6	7.3	1.0
87.5°	418.7	415.3	394.0	360.0	310.5	247.5	172.2	95.1	33.5	3.4	1.5
90°	391.1	383.8	364.9	329.0	279.5	216.9	146.5	76.2	22.3	1.9	1.9
92.5°	363.9	357.6	336.7	299.9	251.8	190.7	121.8	58.2	14.1	1.0	2.4
95°	335.8	329.0	308.6	274.6	223.7	164.0	100.0	42.7	7.8	1.0	2.4
97.5°	308.1	301.8	280.4	246.5	198.4	140.7	79.1	30.1	3.9	1.0	1.9
100°	282.4	275.1	255.7	221.7	173.2	117.4	61.1	19.4	2.4	1.0	1.9
102.5°	255.2	249.4	229.5	196.5	147.0	95.6	45.6	12.1	1.0	1.0	1.5
105°	231.0	223.7	204.3	170.3	125.2	75.2	32.0	7.3	1.0	1.0	1.5



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	150.4	144.6	127.6	99.0	63.6	29.6	8.7	1.5	1.5	1.5	1.5
115°	125.7	116.9	101.9	76.7	47.1	19.4	4.4	1.5	1.5	1.5	1.5
117.5°	100.4	93.2	82.5	58.2	31.1	12.6	2.4	1.5	1.5	1.5	1.5
120°	78.6	71.8	59.7	40.3	20.9	7.3	1.0	1.5	1.5	1.5	1.5
122.5°	56.3	50.9	40.3	26.2	12.6	3.4	1.5	1.5	1.9	1.9	1.5
125°	37.4	34.4	26.7	16.0	7.8	1.5	1.5	1.5	1.9	1.9	1.5
127.5°	24.3	21.8	15.5	9.2	3.4	1.5	1.5	1.9	1.9	1.9	1.5
130°	13.6	12.1	9.2	5.3	1.5	1.5	1.5	1.9	1.9	1.9	1.5
132.5°	7.8	7.3	4.9	1.0	1.5	1.5	1.5	1.9	1.9	1.9	1.9
135°	1.9	1.0	1.0	1.0	1.5	1.5	1.9	1.9	2.4	2.4	1.9
137.5°	0.5	0.5	1.0	1.0	1.5	1.5	1.9	2.4	2.4	2.4	1.9
140°	0.5	0.5	1.0	1.5	1.5	1.5	1.9	2.4	2.4	2.4	1.9
142.5°	0.5	1.0	1.0	1.5	1.5	1.9	1.9	2.4	2.4	1.9	1.9
145°	0.5	1.0	1.0	1.5	1.5	1.9	1.9	2.4	1.9	1.9	1.9
147.5°	1.0	1.0	1.0	1.5	1.5	1.9	1.9	2.4	2.4	1.9	1.9
150°	0.5	1.0	1.0	1.5	1.9	1.9	1.9	2.4	1.9	1.9	1.9
152.5°	0.5	1.0	1.0	1.5	1.9	1.9	1.9	2.4	1.9	1.9	1.9
155°	1.0	1.0	1.0	1.5	1.9	1.9	1.9	2.4	1.9	1.9	2.4
157.5°	1.0	1.0	1.0	1.5	1.9	1.9	1.9	2.4	1.9	1.9	2.4
160°	1.0	1.0	1.0	1.5	1.5	1.9	1.9	1.9	1.9	1.9	1.9
162.5°	1.0	1.0	1.0	1.5	1.5	1.9	1.9	1.9	1.9	1.9	1.9
165°	1.0	1.0	1.0	1.0	1.5	1.5	1.9	1.9	1.9	1.9	1.9
167.5°	1.0	1.0	1.0	1.5	1.5	1.5	1.9	1.9	1.9	1.9	1.9
170°	1.0	1.0	1.0	1.5	1.5	1.5	1.9	2.4	2.4	2.4	2.4
172.5°	1.0	1.0	1.0	1.5	1.5	1.9	1.9	2.4	2.4	2.4	2.4
175°	1.0	1.0	1.0	1.5	1.5	1.9	1.9	2.4	2.4	2.4	2.4
177.5°	0.5	1.0	1.0	1.5	1.5	1.9	1.9	2.4	2.4	2.4	1.9
180°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	380.9	380.9	380.9
2.5°	362.4	355.7	353.7
5°	343.0	331.9	325.6
7.5°	323.6	308.6	301.3
10°	305.7	284.3	276.6
12.5°	284.3	259.6	247.5
15°	264.0	231.9	220.3
17.5°	241.1	205.2	191.7
20°	219.8	178.6	164.5
22.5°	195.5	152.4	136.8
25°	173.7	126.2	108.7
27.5°	149.4	99.5	84.4
30°	126.6	76.2	61.1
32.5°	104.8	55.8	42.2
35°	84.4	37.8	26.7
37.5°	65.0	23.3	13.6
40°	47.1	12.1	6.3
42.5°	31.5	5.8	3.4
45°	19.4	2.9	0.0
47.5°	11.2	0.0	0.0
50°	5.8	0.0	0.0
52.5°	2.4	0.0	0.0
55°	0.0	0.0	0.0
57.5°	0.0	0.0	0.0
60°	0.0	0.0	0.0
62.5°	0.0	0.0	0.0
65°	0.0	0.0	0.0
67.5°	0.0	0.0	0.0
70°	0.0	0.0	0.0
72.5°	0.0	0.0	0.0
75°	0.5	0.5	0.5
77.5°	0.5	1.0	1.5
80°	1.0	1.9	2.4
82.5°	1.9	2.4	2.4
85°	1.9	2.4	2.9
87.5°	2.4	2.9	3.4
90°	2.9	3.4	3.4
92.5°	2.9	3.9	3.9
95°	3.4	3.9	4.4
97.5°	3.9	4.4	4.4
100°	3.4	4.4	4.9
102.5°	2.9	4.4	4.4
105°	2.4	3.4	3.9





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	1.9	2.4	2.4
115°	1.5	1.9	2.4
117.5°	1.5	1.9	1.9
120°	1.5	1.5	1.9
122.5°	1.5	1.5	1.9
125°	1.5	1.5	1.9
127.5°	1.9	1.5	1.5
130°	1.5	1.5	1.5
132.5°	1.9	1.5	1.5
135°	1.9	1.5	1.5
137.5°	1.9	1.5	1.5
140°	1.9	1.5	1.5
142.5°	1.9	1.5	1.5
145°	1.5	1.5	1.5
147.5°	1.5	1.5	1.5
150°	1.5	1.5	1.0
152.5°	1.5	1.0	1.0
155°	1.5	1.0	0.5
157.5°	1.9	1.0	0.5
160°	1.5	1.0	0.5
162.5°	1.5	1.0	0.5
165°	1.5	1.0	0.0
167.5°	1.5	1.0	0.5
170°	1.5	1.0	0.5
172.5°	1.5	1.0	0.5
175°	1.5	0.5	0.5
177.5°	1.5	0.5	0.5
180°	1.5	1.5	1.5



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180°    - - 45°-225°    - - - - 90°-270°







107.5°	203.8	198.0	178.6	146.5	102.4	57.3	21.3	3.9	1.0	1.5	1.5
110°	177.6	172.7	152.8	121.8	82.5	42.7	14.1	2.4	1.5	1.5	1.5







107.5°	1.9	2.9	3.4
110°	1.9	2.4	2.9



(END OF REPORT)